DIGITAL FLAME-AMP STYLE 6 FARAD CAPACITOR BANK ACAP601Q OPERATING INSTRUCTIONS

PLEASE READ THIS MANUAL BEFORE OPERATING UNIT. RETAIN FOR FUTURE REFERENCE.

The Audiobahn Way

To bring the product to market that excites the consumer through sound and vision from an orientation of integrity and customer service. We make you look as good as you sound. We strive to take car audio to an extreme the world has never seen, and a world that never stops evolving.

Audiobahn was established in 1997 with one long-term goal in mind, "**Build it Bigger, Badder, & Better, and the people will take notice!"** We back this statement with an engineering team that has brought home several Innovations, Design & Engineering Showcase Awards, and a marketing team from around the world that spends countless hours developing our no compromise products to satisfy the most discriminating enthusiasts.

Our global manufacturing facilities feature ISO9002 ratings (the highest level of quality control awarded in the electronics manufacturing industry), fully robotic assembly lines and a state of the art, California based R & D laboratory.

Due to overwhelming response from our competitors, and our goal to participate in even more events this year, we created *"TEAM AUDIOBAHN." This organization is designed to create a support network along with shirts and perks for team members. "TEAM AUDIOBAHN" is not only for the diehard competitor, but also for anyone that loves car audio as much as we do. With four levels of play, one is right for you to get started in the Audiobahn family.

Our Technical Department and entire staff look to strive above and beyond the rest of the pack by going that extra mile to help you out. Whether you happen to be a veteran competitor, or a beginner car audio enthusiast that does not know a voice coil from a spider. We are all here to help you get the best system you can with what you have.

Judge for yourself, and remember what it's all about, **"If it's not Bigger, Badder & Better, it's not Audiobahn."** If audio is your life, Audiobahn is the brand for you! We make you look as good as you sound. People never stop trying to get the best product, so we will never stop making it.

*To learn more about "TEAM AUDIOBAHN" please give us a call, see our website at www.audiobahninc.com, or email us at team@audiobahninc.com to learn about all the details.

Table of Contents

INTRODUCTION 3

CAPACITOR INTRODUCTION 4

SPECIFICATIONS 5-6

INSTALLATION AND MOUNTING 7

ADJUSTMENTS AND TROUBLESHOOTING 8

WARNING / DISCLAIMER 9

WARRANTY 10-11

Introduction

Dear Customer,

Congratulations on your purchase of the worlds finest brand of car audio products. Here at Audiobahn Inc. we are devoted to making our musical reproduction the very best, and we are pleased you have chosen our product. Through years of engineering expertise, hand craftsmanship, and critical testing procedures, we have created a wide range of products that reproduce music with all the clarity and richness you deserve.

For maximum performance we recommend you have your Audiobahn product installed by an Authorized Audiobahn Dealer, as we provide specialized training through our Audiobahn Installer Training Programs. Please read your warranty, keep your receipt, and original carton for possible future use.

Great products and proper installation are only a small piece of the puzzle when it comes to your system. Make sure that your installer is using only 100% authentic installation accessories from the Audiobahn Connections. The Audiobahn Connections line has everything ranging from the smallest terminal, to power wires up to 0 gauge, and 4 channel RCA cables.

To get a free brochure on Audiobahn products and Audiobahn Connections in the U.S. call (714) 988-0400 or e-mail us at sales@audiobahninc.com.

WARNING

Continuous exposure to sound pressure levels over 100 dB may cause permanent hearing loss. High powered autosound systems may produce sound pressure levels well over 135dB. Need we say more! Use common sense.

If after reading this manual, you still have questions regarding your product, we recommend that you see your nearest Audiobahn Dealer. A list of Authorized Audiobahn Dealers can be found on our web page. If you need further assistance, feel free to call us at (800)488-8595 and ask for the Technical Department. Be sure to have the model number, date of purchase, and invoice number available when you call.

The model number can be located on the outside of the carton. Record this in the space provided below along with the date of purchase. It is a good idea to keep your receipt with this, as you will need it in the case of a warranty repair or exchange.

Model Number:_____ Date of Purchase: _____

MODEL: ACAP601Q

6 FARAD DIGITAL CAPACITOR WITH BLUE DISPLAY, POSITIVE POLE MAXI FUSE BLOCK AND NEGATIVE POLE DISTRIBUTION CONNECTING BLOCK

Capacitance----------6,000,000 micro farad (6 Farad)
Working Voltage----------24V DC
Surge Voltage----------30V DC
E.S.R. (Equivalent Series Resistance)----------0.0012 ohm @ 120Hz / 25 C
Capacitance Tolerance----------+/- 5%

Features

New Flame Amp Style Design

Two 1/0 Gauge Input

Eight 4 Gauge Outputs

Remote Turn-on Distribution

Auto on/off Blue L.E.D. Four Digit Readout

Electronic Polarity Protection Circuit

Overvoltage Protection Circuit

Soft on/off Circuit

Aluminum Heat Sink with Chrome Plated Cover

Wooden Gift Box

Dimensions

ACAP601Q: 12 3/4" (W) x 3 1/2" (H) x 13" (D)

Capacitor Introduction

When installed properly, your new stiffening capacitor will provide years of dependable service. There are many benefits of adding a stiffening capacitor. The most significant benefit is the capacitors ability to improve bass performance in your sound system. This is possible due to the voltage stabilizing effects of the capacitor.

When an audio system needs to deliver an instantaneous bass peak, the vehicle's electrical system often cannot provide enough power. This means that the system voltage drops substantially to a point that the amplifiers are unable to produce their rated power. This is referred to as clipping. When an amplifier clips, it will cause distortion and can cause amplifier and / or speaker damage.

Stiffening capacitors are able to store large amounts of energy in preparation of these bass peaks. When a bass peak occurs, the stiffening capacitor delivers power to supplement the system voltage and prevent amplifier clipping. This retains amplifier output power, thus improving bass response and increases amplifier and speaker life span.

Another beneficial effect of capacitors is their ability to filter the current produced by the vehicle's alternator. This alternator current, can cause noise (alternator whine) in the audio system. A capacitor will help reduce or eliminate this "alternator whine" and popping.

We recommend using 1 farad of capacitance for every 1000 watts of amplifier output. This is a general rule of thumb and may be adjusted up or down depending on the efficiency, current draw, and design of the amplifiers being used.

You can find the mounting screw sin the attached hardware bag.. Then use the lock screws to hold the tab in the car's wall. Make sure the whole unit does not move after you install all four tabs.

A) Blue lite digital voltage meter with 4 digit readout that can measure 0.01 DCV.

B) Positive pole distribution block with 4 maxi fuses. Negative pole distribution block. These connections can offer a simple alternative to using various power and ground distribution blocks when connecting multiple amplifiers and accessories.

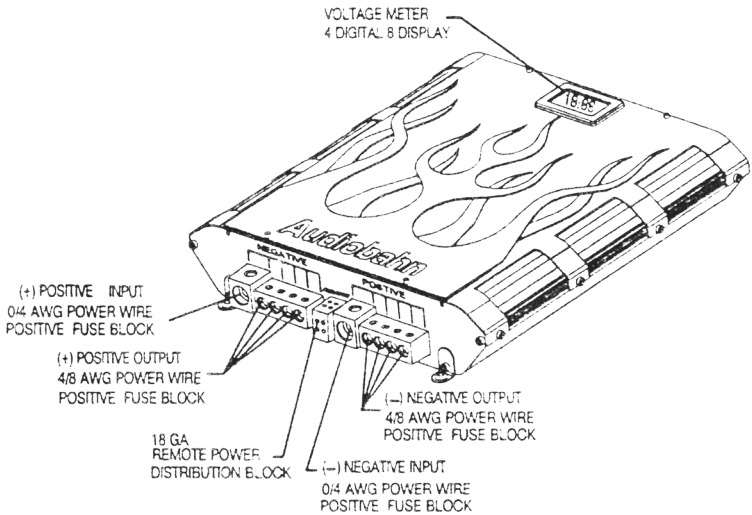
C) Reverse pole connecting PCB buzz warning function. If the capacitor is connected incorrectly by reversing the positive and negative wires during the installation process, the PCB will issue a 45 second noise to warn you.

D) High-end platinum plated 100% solid brass parts and chrome plated metal cover.

E) Over voltage limit and low battery voltage limit warning. When the system voltage peeks over 16V (DC) or LESS than 10V (DC), the buzzer on the PCB will issue an audible noise warning.

F) Multiple small capacitance capacitors linked together to provide the lowest inner E.S.R. and the largest momentary discharge.

ACAP601Q

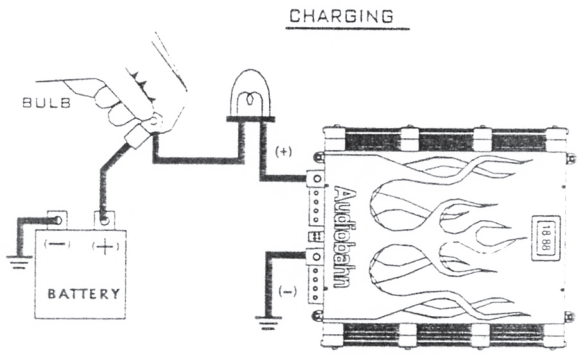


WARNING!!!

Before making or breaking any electrical connections, please make sure to read the following instructions on how to properly charge and discharge the capacitor. Not following the charge / discharge instructions can lead to permanent damage to the capacitor, which is not covered under the manufacturer warranty.

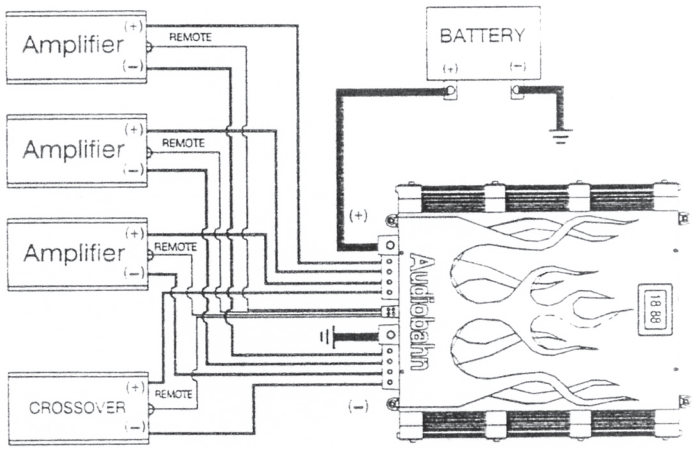
Charging

After mounting the capacitor in its final position, attach the ground to the capacitor and the chassis grounding location. Next hold the supplied bulb or resistor between the (+) positive battery lead and the (+) positive terminal of the capacitor. If using a bulb, it should light up for a short time (normally 15-30 seconds or so) and then go out. If using a resistor, just wait the appropriate time of 15-30 seconds. After waiting for the capacitor to charge, remove the bulb or resistor and immediately attach the power (+) cable to the capacitor. The best way to ensure the cap is charged best is to keep the bulb or resistor attached until you touch the main power (+) wire to the capacitor, then remove it.



Follow the attached wiring diagram to connect all wiring and parts. Below is an illustration showing correct wiring for the capacitor.

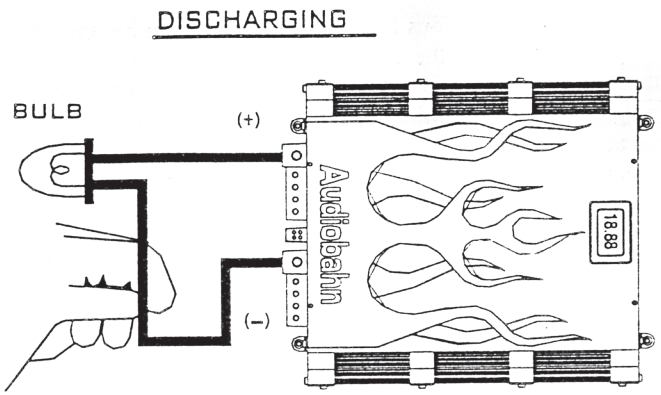
Multiple Capacitor Wiring Diagram



BEFORE MAKING ANY POWER CONNECTIONS, DISCONNECT THE BATTERY POWER FROM YOU SOUND SYSTEM.

Discharging

If you plan to store your vehicle or plan on not using the system for a long period of time, we suggest to remove the capacitor. Anytime you disconnect the capacitor's power wire from the battery, you need to properly discharge the capacitor. This is done by using the same supplied bulb as you used for charging the capacitor. Take the bulb and place the ends across the negative (-) and positive (+) terminals of the capacitor. This will cause the capacitor to safely discharge so it can be stored away.



To Discharge the capacitor: With the battery power disconnected, place the light bulb or resistor across the capacitor's positive and negative terminals until the light goes out or for three minutes if using a resistor.

Should you encounter a problem with your capacitor, you can follow the steps below to make sure that it is working properly.

1. Follow all power (+) and ground (-) connections to and from the capacitor. Make sure there are no kinks in the wire and no cuts either. If there is a problem in the wiring, make sure to use new wire and place the wire in a good location where it will not be roughed up and abused.

2. If using a capacitor with a digital display, you can visually check the capacitor to see if it is functioning correctly. After charging the capacitor with the provided bulb, remove the bulb and attach the power wire. If the volt-meter changes slowly, then the capacitor is properly holding the charge. If the display rapidly decreases and shuts off, then the cap is not properly holding a charge.

3. In the case that you find that step 2 shows your capacitor is not holding a charge, you may want to take the capacitor to an authorized dealer to have them run a capacitance test on the capacitor.

Technical Assistance(800)488-8595 /tech@audiobahninc.com

WARNING

Investigate the layout of your automobile thoroughly before drilling or cutting any holes. Take care when you work near the gas tanks, gas lines, hydraulic lines, and electrical wiring. Attach the system securely to the automobile to prevent damage, particularly in the event of an accident. Do not mount the system so that the wire connections are unprotected or are subject to pinching or damage from nearby objects.

The +12V DC power wire must be fused at the battery positive terminal connection. Before making or breaking power connections at the system power terminals, disconnect the +12V wire at the battery end. Confirm your radio/head unit and/or other equiptment is turned off while connecting the input jacks and speaker terminals. If you need to replace the power fuse, replace it only with a fuse identical to that supplied with the system. Using a fuse of different type or rating may result in damage to this system which is not covered by the warranty.

Disclaimer

Specifications are subject to change without notice.
For the most updated Specifications call Audiobahn,
or your local Authorized Audiobahn Dealer,
or check the Audiobahn website.
www.audiobahninc.com

Technical Assistance (800)488-8595 /tech@audiobahninc.com

Audiobahn Consumer Product Warranty Policy

Audiobahn products are manufactured with the highest quality components and some of the most advanced technology available. Because of this, we recommend that you have your new products installed by an **Authorized Audiobahn Dealer.(A list of Authorized Audiobahn Dealers can be found on our web page).**

Warranty Period: One year from the original date of purchase.

Warranty Coverage: This warranty covers manufacturer defects only. The warranty is applicable to the original purchaser, and is non-transferable. You must have a receipt from an **Authorized Audiobahn Dealer** that shows the location of purchase, price paid, and date of purchase.

(Products purchased by consumers from an **Authorized Audiobahn Dealer** outside the United States, are covered only by that countries Distributor and not by **Audiobahn**).

Notes:
Complete subwoofer enclosures (**Audiobahn** will replace defective subwoofers, plexiglass, or neon only. Do not send the entire enclosure, unless the enclosure is defective itself. You must receive prior authorization and an RA# before sending in any complete enclosure).

Audiobahn will only replace L.E.D.(s) found to be defective at the time of purchase.

Audiobahn warranties do not cover the following:

- Any product not purchased from an **Authorized Audiobahn Dealer** (including Internet dealers)
- Damage caused by abuse, misuse, accident, water / flood, or theft (including any cosmetic damage to the body of the product)
- Damage caused by improper installation
- Any cost or expense related to removal or reinstallation
- Any unauthorized services
- Any product that has the serial number removed, altered, or defaced
- Subsequent damage to any other components
- Pinched, cut, or stripped wires
- Any product that is new, and/or found to be in working condition
- L.E.D. indicators on electronics

How to receive warranty service: Contact your local **Authorized Audiobahn Dealer**, or call **Audiobahn** at **(800) 488-8595** between the hours of 9:00 AM and 5:00 PM PST.

If you are having problems with your system, we recommend you check the product carefully and thoroughly to confirm that the product truly has a manufacturer defect; as opposed to abuse, or other components in the system causing the failure. This might include having an **Authorized Audiobahn Dealer** look at the product to confirm the source of the problem. Any product found to have a manufacturer defect will be replaced with a new piece of the same or similar model, or repaired at the discretion of **Audiobahn.** Any product found to have no manufacturer defect will be returned to the sender at their cost.

You must acquire a Return Authorization Number (#) prior to returning ANY product to Audiobahn. That Return Authorization Number (RA#) must be prominently and clearly marked on the outside of the shipping carton, or product delivery will be refused (no exceptions will be made).

Please note: All shipping and handling (to and from) charges will be the sole responsibility of the consumer.

Please record and keep your Return Authorization Number (RA#) in the event that further communication is required.

Return Authorization Number (RA#): _____

Date product was sent: _____

Contact Information

Audiobahn Headquarters
114 South Berry St.
Brea, CA 92821
Phone (800)488-8595 Fax. (714)988-0433
Pacific Coast Time : 9am-5pm Mon. - Fri.
tech@audiobahninc.com